

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SGE4--SQLEDOS-10L35KE1--OSMWSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
[TEST]20141022\_M-10L-Gen3  
[TESTLAB]OSRAM SYLVANIA  
[TESTDATE]8/13/2014  
[ISSUEDATE]8/13/2014  
[UPDATE]11/11/2016  
[MANUFAC]Spectrum Lighting  
[LUMCAT]SGE4SQLEDOS-10L-35K-E1-CA0244OS-MW-SO  
[LUMINAIRE]4" Square, LED recessed downlight  
[TRIM]Cast Alum, Matte White finish, regressed Solite lens  
[OTHER]59.6 Degree Beam Angle  
[LAMP]N/A  
[LAMPCAT]N/A  
[OTHER]Total Luminaire Watts is approximate  
[OTHER]Photometric measurements taken at 120VAC  
[OTHER]Data applicable for Housing: SGE4PZSQLEDOS  
[OTHER]Data applicable for Trims: SD4NOS-MS-SO and TP0244OS-MW-SO  
[OTHER]Output Multipliers: 40K x 1.0, 30K x 1.0, 27K x 0.946  
[OTHER]Catalog number designation update: 14W is now called 10L  
[OTHER]This report updated by Spectrum Lighting, scaled from Gen2 30L

**CHARACTERISTICS**

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	803
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	77
Total Luminaire Watts	10.46
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.96
Spacing Criterion (90-270)	0.94
Spacing Criterion (Diagonal)	0.98
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.31 ft
Luminous Width (90-270)	0.31 ft
Luminous Height	0.00 ft

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**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	18270	19284	18125
55	15514	14560	15488
65	12493	12122	12409
75	10245	10177	10221
85	8459	8695	8515

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
<b>0.0</b>	603.751	603.751	603.751	603.751	603.751	603.751	603.751	603.751	603.751	603.751
<b>2.5</b>	603.724	604.112	603.812	603.291	601.921	603.291	603.812	604.112	603.724	604.112
<b>5.0</b>	599.764	599.494	599.638	600.098	598.680	600.098	599.638	599.494	599.764	599.494
<b>7.5</b>	596.587	595.800	595.211	595.337	595.323	595.337	595.211	595.800	596.587	595.800
<b>10.0</b>	591.438	590.119	588.858	589.921	590.739	589.921	588.858	590.119	591.438	590.119
<b>12.5</b>	583.930	583.974	583.286	583.204	584.066	583.204	583.286	583.974	583.930	583.974
<b>15.0</b>	572.125	574.268	577.022	573.846	571.143	573.846	577.022	574.268	572.125	574.268
<b>17.5</b>	549.155	557.644	567.725	554.267	547.649	554.267	567.725	557.644	549.155	557.644
<b>20.0</b>	514.703	532.016	552.461	524.679	512.331	524.679	552.461	532.016	514.703	532.016
<b>22.5</b>	467.145	494.491	524.607	485.596	464.381	485.596	524.607	494.491	467.145	494.491
<b>25.0</b>	411.553	446.843	483.813	436.210	408.963	436.210	483.813	446.843	411.553	446.843
<b>27.5</b>	352.050	391.368	431.552	379.324	348.996	379.324	431.552	391.368	352.050	391.368
<b>30.0</b>	292.181	333.647	371.135	322.145	289.884	322.145	371.135	333.647	292.181	333.647
<b>32.5</b>	238.853	277.040	312.476	267.157	238.008	267.157	312.476	277.040	238.853	277.040
<b>35.0</b>	197.166	226.976	257.059	219.291	196.086	219.291	257.059	226.976	197.166	226.976
<b>37.5</b>	165.605	187.723	209.640	181.776	164.399	181.776	209.640	187.723	165.605	187.723
<b>40.0</b>	142.291	157.623	171.739	153.305	141.112	153.305	171.739	157.623	142.291	157.623
<b>42.5</b>	126.723	135.185	142.925	132.411	125.442	132.411	142.925	135.185	126.723	135.185
<b>45.0</b>	115.449	118.639	121.856	117.675	114.529	117.675	121.856	118.639	115.449	118.639
<b>47.5</b>	106.234	106.411	106.292	106.715	105.757	106.715	106.292	106.411	106.234	106.411
<b>50.0</b>	97.697	96.164	93.815	97.172	97.486	97.172	93.815	96.164	97.697	96.164
<b>52.5</b>	88.812	86.570	83.414	87.763	88.594	87.763	83.414	86.570	88.812	86.570
<b>55.0</b>	79.519	77.610	74.632	78.609	79.389	78.609	74.632	77.610	79.519	77.610
<b>57.5</b>	70.290	69.026	66.657	69.482	70.116	69.482	66.657	69.026	70.290	69.026
<b>60.0</b>	61.733	60.976	59.159	60.915	61.354	60.915	59.159	60.976	61.733	60.976
<b>62.5</b>	53.955	53.543	52.224	53.120	53.499	53.120	52.224	53.543	53.955	53.543
<b>65.0</b>	47.180	46.645	45.780	46.189	46.863	46.189	45.780	46.645	47.180	46.645
<b>67.5</b>	40.613	40.269	39.696	40.228	40.429	40.228	39.696	40.269	40.613	40.269
<b>70.0</b>	34.683	34.281	33.995	34.353	34.496	34.353	33.995	34.281	34.683	34.281
<b>72.5</b>	29.063	28.770	28.610	28.815	28.876	28.815	28.610	28.770	29.063	28.770
<b>75.0</b>	23.696	23.546	23.539	23.597	23.641	23.597	23.539	23.546	23.696	23.546
<b>77.5</b>	18.816	18.771	18.853	18.843	18.802	18.843	18.853	18.771	18.816	18.771
<b>80.0</b>	14.429	14.358	14.416	14.467	14.372	14.467	14.416	14.358	14.429	14.358
<b>82.5</b>	10.336	10.336	10.418	10.428	10.296	10.428	10.418	10.336	10.336	10.336
<b>85.0</b>	6.588	6.608	6.772	6.768	6.632	6.768	6.772	6.608	6.588	6.608
<b>87.5</b>	3.231	3.234	3.432	3.439	3.371	3.439	3.432	3.234	3.231	3.234
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>95.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>97.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>100.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>102.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>105.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>107.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>110.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>112.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>115.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>117.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>120.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>122.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>125.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>127.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>130.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>132.5</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**CANDELA TABULATION - (Cont.)**

135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**Vert. Angles**      **Horizontal Angles**

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	603.751	603.751	603.751	603.751	603.751	603.751	603.751
2.5	603.812	603.291	601.921	603.291	603.812	604.112	603.724
5.0	599.638	600.098	598.680	600.098	599.638	599.494	599.764
7.5	595.211	595.337	595.323	595.337	595.211	595.800	596.587
10.0	588.858	589.921	590.739	589.921	588.858	590.119	591.438
12.5	583.286	583.204	584.066	583.204	583.286	583.974	583.930
15.0	577.022	573.846	571.143	573.846	577.022	574.268	572.125
17.5	567.725	554.267	547.649	554.267	567.725	557.644	549.155
20.0	552.461	524.679	512.331	524.679	552.461	532.016	514.703
22.5	524.607	485.596	464.381	485.596	524.607	494.491	467.145
25.0	483.813	436.210	408.963	436.210	483.813	446.843	411.553
27.5	431.552	379.324	348.996	379.324	431.552	391.368	352.050
30.0	371.135	322.145	289.884	322.145	371.135	333.647	292.181
32.5	312.476	267.157	238.008	267.157	312.476	277.040	238.853
35.0	257.059	219.291	196.086	219.291	257.059	226.976	197.166
37.5	209.640	181.776	164.399	181.776	209.640	187.723	165.605
40.0	171.739	153.305	141.112	153.305	171.739	157.623	142.291
42.5	142.925	132.411	125.442	132.411	142.925	135.185	126.723
45.0	121.856	117.675	114.529	117.675	121.856	118.639	115.449
47.5	106.292	106.715	105.757	106.715	106.292	106.411	106.234
50.0	93.815	97.172	97.486	97.172	93.815	96.164	97.697
52.5	83.414	87.763	88.594	87.763	83.414	86.570	88.812
55.0	74.632	78.609	79.389	78.609	74.632	77.610	79.519
57.5	66.657	69.482	70.116	69.482	66.657	69.026	70.290
60.0	59.159	60.915	61.354	60.915	59.159	60.976	61.733
62.5	52.224	53.120	53.499	53.120	52.224	53.543	53.955
65.0	45.780	46.189	46.863	46.189	45.780	46.645	47.180
67.5	39.696	40.228	40.429	40.228	39.696	40.269	40.613
70.0	33.995	34.353	34.496	34.353	33.995	34.281	34.683
72.5	28.610	28.815	28.876	28.815	28.610	28.770	29.063
75.0	23.539	23.597	23.641	23.597	23.539	23.546	23.696
77.5	18.853	18.843	18.802	18.843	18.853	18.771	18.816
80.0	14.416	14.467	14.372	14.467	14.416	14.358	14.429

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CANDELA TABULATION - (Cont.)

82.5	10.418	10.428	10.296	10.428	10.418	10.336	10.336
85.0	6.772	6.768	6.632	6.768	6.772	6.608	6.588
87.5	3.432	3.439	3.371	3.439	3.432	3.234	3.231
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
95.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
102.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
115.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
117.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
120.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
122.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
125.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
127.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
130.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
132.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
135.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
137.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
140.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
142.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
145.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
147.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
150.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
152.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
155.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
157.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
160.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
162.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
165.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
167.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
170.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
172.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
177.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
180.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	217.36	N.A.	27.10
0-30	417.70	N.A.	52.00
0-40	561.24	N.A.	69.90
0-60	724.06	N.A.	90.20
0-80	795.55	N.A.	99.10
0-90	803.07	N.A.	100.00
10-90	746.12	N.A.	92.90
20-40	343.88	N.A.	42.80
20-50	437.15	N.A.	54.40
40-70	209.12	N.A.	26.00
60-80	71.49	N.A.	8.90
70-80	25.20	N.A.	3.10
80-90	7.52	N.A.	0.90
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	803.07	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	56.95
10-20	160.41
20-30	200.34
30-40	143.54
40-50	93.27
50-60	69.55
60-70	46.29
70-80	25.20
80-90	7.52
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

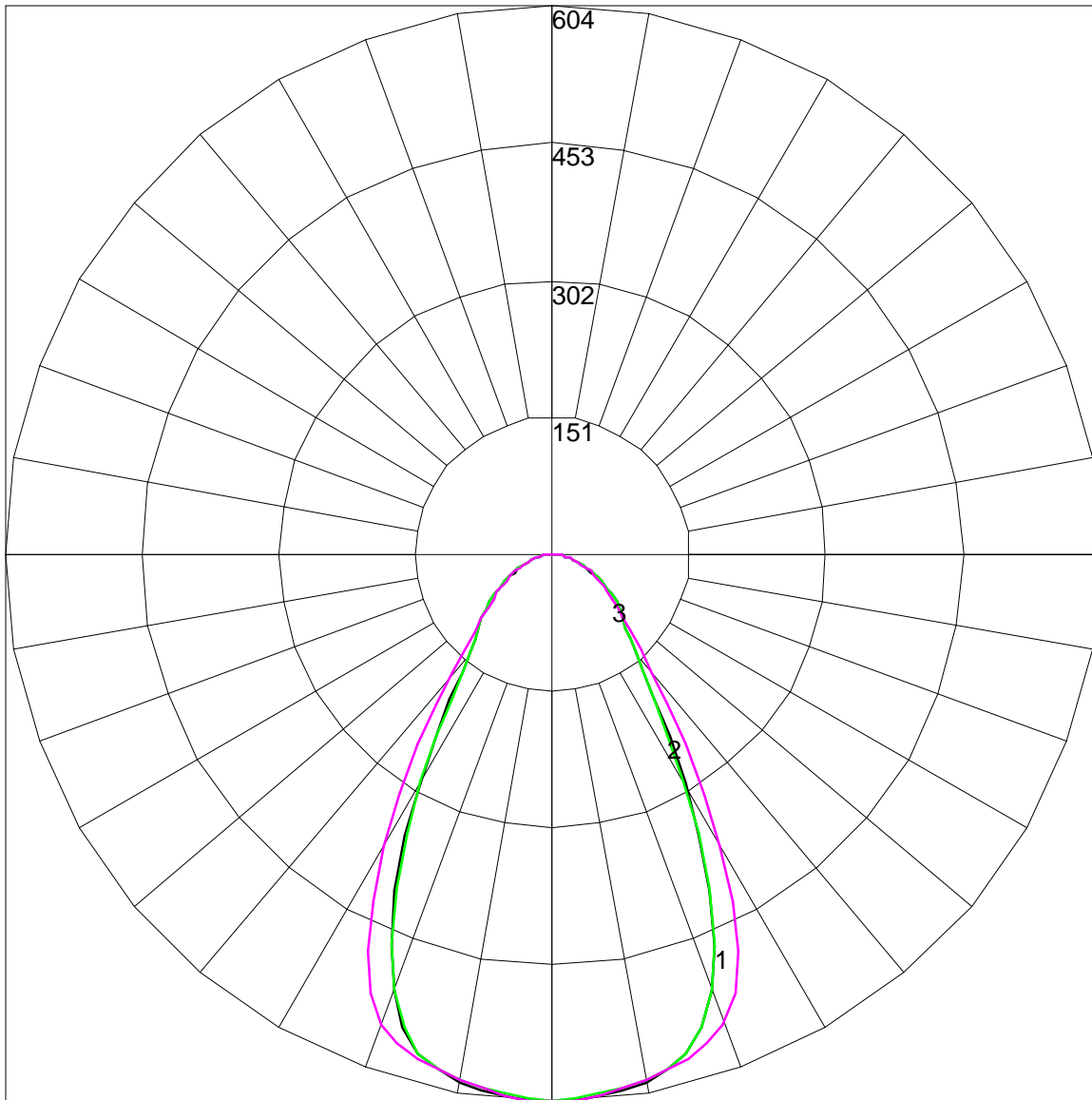
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	108	104	101	109	105	102	100	101	99	97	97	95	94	94	92	91	89
2	104	97	92	87	101	95	91	86	92	88	85	89	86	83	86	83	81	79
3	97	88	82	77	95	87	81	76	84	79	75	82	77	74	79	76	72	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	65	64
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	55	53
7	75	64	56	51	73	63	56	51	62	55	51	60	55	50	59	54	50	48
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45
9	67	55	48	44	66	55	48	44	54	48	43	53	47	43	52	47	43	42
10	63	52	45	41	62	51	45	41	51	45	40	50	44	40	49	44	40	39

POLAR GRAPH



Maximum Candela = 604.112 Located At Horizontal Angle = 22.5, Vertical Angle = 2.5

# 1 - Vertical Plane Through Horizontal Angles (0 - 180)

# 2 - Vertical Plane Through Horizontal Angles (90 - 270)

# 3 - Vertical Plane Through Horizontal Angles (45 - 225)